

# Oral mucosal lesions: Classification, diagnosis, and management.

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## Introduction

Oral mucosal lesions refer to abnormalities or changes in the tissues that line the oral cavity. These lesions can vary in size, appearance, and location, and they may be associated with a wide range of causes, including infection, inflammation, trauma, or neoplastic processes. Proper classification, accurate diagnosis, and effective management of oral mucosal lesions are essential for providing appropriate care and ensuring positive patient outcomes [1].

## Classification of Oral Mucosal Lesions

Oral mucosal lesions can be classified into several categories based on their clinical characteristics and etiology. One commonly used classification system is the World Health Organization (WHO) classification, which categorizes lesions into three main groups: Inflammatory, Reactive, and Neoplastic.

**Inflammatory Lesions:** Inflammatory lesions are characterized by tissue inflammation and are commonly associated with infection or immune-mediated processes. Examples include aphthous ulcers, candidiasis, and lichen planus. These lesions often present with erythema, swelling, and discomfort.

**Reactive Lesions:** Reactive lesions arise in response to local irritants or chronic irritation. They are typically benign and include conditions such as traumatic ulcers, linea alba, and irritational fibroma. These lesions may exhibit features such as hyperkeratosis or fibrous hyperplasia.

**Neoplastic Lesions:** Neoplastic lesions refer to abnormal tissue growth and can be either benign or malignant. Benign neoplastic lesions include squamous papilloma and pyogenic granuloma, while malignant lesions encompass squamous cell carcinoma, salivary gland tumors, and oral melanoma. Early detection and appropriate management are crucial for improving outcomes in cases of neoplastic lesions [2].

## Diagnosis of Oral Mucosal Lesions

Accurate diagnosis of oral mucosal lesions requires a systematic approach involving patient history, clinical examination, and sometimes further investigations. The following steps are typically followed in the diagnostic process:

**Patient History:** Obtaining a detailed patient history is essential for identifying potential risk factors and understanding the lesion's progression. Factors such as tobacco or alcohol use, previous trauma, or systemic conditions may provide valuable insights.

**Clinical Examination:** A thorough intraoral examination is performed to assess the lesion's location, size, color, texture, and any associated symptoms. Special attention is given to any areas of induration, ulceration, or pigmentation. Adjacent lymph nodes are palpated to check for enlargement.

**Biopsy:** In some cases, a biopsy is necessary to confirm the diagnosis. A small tissue sample is obtained from the lesion and sent for histopathological examination. This examination helps differentiate between benign and malignant lesions and guides further management [3].

## Management of Oral Mucosal Lesions

The management of oral mucosal lesions depends on their underlying cause, severity, and potential for malignant transformation. The following approaches are commonly employed:

**Symptomatic Treatment:** In cases of inflammatory or reactive lesions, symptomatic treatment may be sufficient. This may include pain relief with analgesics, topical antifungal agents for candidiasis, or mouth rinses to alleviate discomfort.

**Antimicrobial Therapy:** When oral mucosal lesions are caused by bacterial, fungal, or viral infections, appropriate antimicrobial therapy is prescribed. For example, antifungal medications may be used to treat oral candidiasis, and antiviral drugs may be prescribed for herpes simplex virus infections.

**Surgical Excision:** Some oral mucosal lesions, particularly benign neoplastic lesions, may require surgical excision. This involves removing the lesion along with an adequate margin of normal tissue to prevent recurrence [4].

**Radiation and Chemotherapy:** In cases of malignant neoplastic lesions, radiation therapy and chemotherapy may be necessary. These treatment modalities aim to eliminate cancer cells and prevent their spread to other tissues or organs.

**Follow-up and Surveillance:** Regular follow-up appointments are crucial to monitor the healing process, detect any recurrence or progression of lesions, and address any new concerns. Long-term surveillance is especially important for patients with a history of malignant lesions to ensure early detection of potential recurrences.

**Patient Education and Lifestyle Modifications:** Educating patients about the importance of maintaining good oral hygiene, avoiding tobacco and alcohol use, and practicing healthy lifestyle habits is essential. These measures can help

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prevent the development or recurrence of oral mucosal lesions and promote overall oral health [5].

## Conclusion

Oral mucosal lesions encompass a broad spectrum of conditions with various etiologies. A systematic approach involving patient history, clinical examination, and, if necessary, biopsy is crucial for accurate diagnosis. The management of oral mucosal lesions may involve symptomatic treatment, antimicrobial therapy, surgical excision, radiation and chemotherapy, and long-term surveillance. Additionally, patient education and lifestyle modifications play a vital role in preventing and managing these lesions.

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